



NATIONAL PARK SERVICE

Environmental Audit Program

EnviroCheck Sheet

Environmental Management Systems
June 2002 Update

ENVIRONMENTAL MANAGEMENT SYSTEMS

An “Environmental Management System” (EMS, not to be confused with “Emergency Management” or “Emergency Medical” System) is a management approach that formally integrates environmental considerations into day-to-day decisions and practices. An EMS is part of a facility’s overall management system, similar to personnel and financial management systems. An EMS provides a *proactive* approach to environmental management that emphasizes efficiency and continuous improvement instead of *reactive* crisis management. Investing in an EMS can provide benefits that yield tangible returns such as:

- Reducing legal, environmental, and human risk, and diminishing liability;
- Identifying and reducing environmental impacts, which make operations more efficient and less wasteful; and
- Fostering more positive relationships with employees, the public, and regulators, by demonstrating a commitment to improving environmental performance and going beyond regulatory compliance.

A formal EMS includes elements such as policy, performance goals and objectives, designated roles and responsibilities, allocation of resources, institution of procedures and measurement of performance. An EMS provides a framework for managing environmental responsibilities, including regulatory compliance. By improving overall environmental performance and placing more emphasis on pollution prevention and best management practices (BMPs), an EMS can also help parks operate more efficiently and move beyond compliance (see discussion on page 4).

EMS models are flexible enough that they can be structured to address the specific goals, activities, budgets, conditions, and stakeholders of any NPS facility. However, the EMS should be appropriate to the nature and scale of facility operations. Therefore it may vary in complexity from a set of simple policies, goals and standard operating procedures (SOPs) guiding the operations of a small historic site, to complex programs managed by full-time staff. Regardless of the scope, an effective EMS provides managers with the tools to better manage and assess their environmental activities.

Through implementing good business practices, many parks are likely to have already informally incorporated many elements of an EMS into their operations. However, a formal documented EMS provides managers with a more effective tool to tackle environmental concerns and issues that stem from day-to-day business. The EMS should build upon existing programs, which means incurring fewer costs compared to adopting an entirely new system to address environmental issues.

Auditor's Guidelines

Records to Review

- Environmental policy
- Safety policy
- GPRA documents
- Job descriptions
- Performance evaluation criteria
- Training records
- Project clearance forms
- Environmental program plans
- Contingency plans
- Standard operating procedures

Features to Observe

- Records and document organization in key compliance areas
- Housekeeping
- Personnel knowledge

Persons to Contact

- Superintendent
- Facility Manager
- Environmental Coordinator
- Safety Officer
- Division Chiefs

LEGAL REQUIREMENTS

Federal

Executive Order 13148 - Greening The Government Through Leadership In Environmental Management.

EO 13148 stipulates that, by December 31, 2005, each federal agency shall implement an EMS at all appropriate agency facilities (an "appropriate agency facility" would include any facility whose operations have environmental impacts). The EMS must be based on facility size, complexity, and the environmental aspects of facility operations. The facility EMS shall include measurable environmental goals, objectives, and targets that are reviewed and updated annually.

NPS Policy on Environmental Management Systems pending.

COMPLIANCE REQUIREMENTS

EO 13148 specifies that a facility's EMS should be based on the Code of Environmental Management Principles (CEMP) for federal agencies and/or *another appropriate environmental management framework*. Once established, EMS performance must be measured in facility audit programs. The EO does not provide a definition of an appropriate facility. It is anticipated that most parks would benefit from a formal EMS. However, the level and formality of the EMS is dependant upon the size and complexity of the operation.

EMS Standards and Models

There are several available standards and models that provide a blueprint to incorporate the EO required elements of an EMS. Three standards are:

- EPA's Compliance-focused Environmental Management System - used by EPA as part of enforcement agreements;
- EPA's Code of Environmental Management Principles (CEMP) - which provides an outline for an EMS as applied to federal facilities; and
- ISO 14001 - the international standard commonly adopted by private industry and some Department of Energy and Department of Defense facilities.

While these EMS standards and models vary, they generally include the following elements:

- *Policy Statement* - a statement of the organization's (i.e., Park's) commitment to the environment.
- *Identification of Significant Environmental Impacts* - environmental attributes of facility activities and services and their effects on the environment.
- *Development of Objectives and Targets* - specific environmental goals for the facility.
- *Implementation Plan* - formal plan to meet objectives and targets.
- *Program Implementation* - Institution of processes and procedures including training, budget and other resources to execute the plan.
- *Management Review* - formal commitment to continuous improvement of the system's performance.

While EMS *elements* may follow a general formula, an *actual* EMS must be tailored specifically to a facility's unique operations if it is to be effective.

The CEMP

In September 1996, EPA requested federal agencies to provide a brief written statement declaring the agency's support for the CEMP Principles. Responses endorsing the CEMP on an agency-wide basis were received from the Department of Interior and 15 other federal agencies (see the "Implementation Guide for the Code of Environmental Management Principles for Federal Agencies," Federal Facilities Enforcement Office, USEPA, EPA-315-B-97-001, March 1997, for more information about federal agency endorsement of the CEMP). The NPS completed an organization-wide study of its performance based on this model in the year 2000. The CEMP emphasizes:

- Sustainable development;
- Pollution prevention; and
- Regulatory compliance.

The CEMP identifies five key elements of a comprehensive EMS, including:

1. *Management Commitment*: Top management of the organization implementing the EMS commits in writing to improved environmental performance. This is done by establishing an environmental policy emphasizing pollution prevention and the need to ensure compliance with environmental requirements. Management must also commit to developing policies based on the facility's environmental objectives.
2. *Compliance Assurance and Pollution Prevention*: The facility implements proactive programs that aggressively identify and address potential compliance problem areas; and utilize pollution prevention approaches to correct deficiencies and improve environmental performance.
3. *Enabling Systems*: The facility develops and implements the necessary measures to enable personnel to perform their functions consistent with regulatory requirements, agency environmental policies, and the facility's overall mission. Those "necessary measures" may include documentation of procedures, training requirements, and communication strategies.
4. *Performance and Accountability*: The facility develops measures to address employee environmental performance and ensure full accountability of environmental functions.
5. *Measurement and Improvement*: The facility develops and implements a program to assess progress toward meeting its environmental goals and uses the results to improve environmental performance.

The NPS is committed to addressing EMS requirements through a CEMP framework that forms the basis against which NPS facilities will be evaluated. Although the CEMP is emphasized in the NPS audit program, NPS facilities are encouraged to utilize any EMS standard that is appropriate for its size and the scope of its operations.

Going “Beyond Compliance”

Being compliant with environmental regulations is the primary goal of most environmental programs. When a facility is compliant, permits are requested when wastewater is discharged, hazardous waste is managed according to the appropriate regulations, and all relevant reports are filed with state environmental agencies. However, simply setting “compliance” as a *primary* goal should not preclude a facility from looking for ways to conduct operations that are easier, less costly, and less harmful to the environment.

The goal of an effectively implemented EMS is to move agencies “beyond compliance” and the traditional, short-term focus on regulatory requirements, to a broader, more inclusive view of the interrelated nature of their environmental activities. Going beyond compliance encourages participation at all staff levels to improve and coordinate management, rather than relying on management directives based on legal requirements. A well-implemented EMS allows a facility to move from a reactive mode (e.g., knowing how to react to a hazardous waste spill) to a proactive mode (e.g., establishing systems to anticipate and ensure a spill does not occur in the first place, or even identifying opportunities to eliminate waste completely).

While regulatory compliance will always be required, an EMS can provide facilities with a tool to improve overall performance while maintaining compliance as a performance baseline. An approach based “beyond compliance” can help reallocate resources to priority areas without sacrificing compliance.

Relationship to Other Initiatives

NPS agencies face a complex array of statutory and executive mandates. An EMS offers the opportunity to integrate other NPS programs under an umbrella document. Following are additional opportunities that could be incorporated into a facility EMS.

Greening and Sustainable Development Strategy

The NPS has established an Environmental Leadership (EL) Initiative that is being incorporated into NPS policy through Director’s Order #13: Environmental Leadership. Specifically, this Directors Order outlines NPS policy for “greening” the Service in order to establish informed decision-making and encourage actions at all agency levels to ensure, among other things; comprehensive recycling, energy and water conservation, environmentally preferable or “green” procurement, sustainable planning, design and construction, and the use of best environmental practices.

An EMS can support a greening or sustainable development strategy because it provides a framework for implementing practices and procedures designed to help a facility implement greening or sustainable development goals and objectives. The greening or sustainable development strategy provides guidance on where the facility should go (e.g., toward sustainability) while the EMS is one of the key tools for getting there.

National Environmental Policy Act (NEPA)

As a federal agency, the NPS is required under NEPA to evaluate the environmental impacts of its proposed activities. An EMS can contribute to fulfilling NEPA requirements by drawing on EMS data for NEPA scoping and analysis efforts.

Government Performance and Results Act of 1993 (GPRA)

GPRA institutes an accountability process for federal agencies. It requires federal agencies to develop goals that support the organization’s mission that can be used over time to measure the organization’s performance. For an organization such as the NPS, whose mission includes a mandate to preserve, conserve, and protect resources, many of these goals must necessarily focus on environmental performance. For example, NPS GPRA goals exist

concerning execution of environmental audits and completion of corrective actions for all parks and concession services operating in the parks.

The GPRA process has been extended down to the facility-level where parks are required to establish individual facility goals that support those of the larger organizational unit. GPRA environmental goals can be incorporated into the facility EMS. Environmentally focused GPRA goals can become EMS goals, the implementation plan/program can directly support these goals, and EMS measurement can include metrics related to the GPRA goals (e.g., reducing waste, conserving water or energy).

FOR MORE INFORMATION

A variety of guidance is available on how to implement a formal EMS from the EPA and other sources. The following sources are focused on federal facilities and/or small operations:

- Implementation Guide for the Code of Environmental Management Principles for Federal Agencies, <http://es.epa.gov/oeca/comp/compoc.html>.
- “Environmental Management Systems: An Implementation Guide for Small and Medium Sized Organizations, Second Edition,” <http://www.epa.gov/OWM/wm046200.htm>
- Environmental Management Systems Primer for Federal Facilities, DOE/EH-0573 (1998), <http://tis.eh.doe.gov/oepa/guidance/ems/emsprimer.pdf>.
- Implementation Guide for the Code of Environmental Management Principles for Federal Agencies, EPA 315-B-97-001 (3/97), <http://es.epa.gov/oeca/comp/compoc.html>. Includes links to the CEMP.
- Generic Protocol for Conducting Environmental Audits at Federal Facilities, EPA 300-B-96-012A&B, <http://es.epa.gov/oeca/fedfac/complian/mainintro.html>. While Volume A addresses regulatory compliance, Volume B discusses a more holistic approach to auditing management principles.
- Protocols for Conducting Environmental Management Assessments of DOE Organizations, DOE/EH-0326. Includes eight disciplines based upon key elements of an EMS.
- Environmental Management Reviews at Federal Facilities, <http://es.epa.gov/oeca/fedfac/cfa/CaseStudy-EMRs.html>
- Environmental Management Review Policy and Guidance for Federal Facilities, <http://es.epa.gov/oeca/fedfac/policy/emrpolicy.html>



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Most questions on this check sheet deal with EMS requirements that are not required of federal facilities, by law, until 2005. The detail and formality of an EMS must be appropriate to the size and complexity of park operations. In using this check sheet, auditors should evaluate a park's progress towards implementing an "appropriate" EMS to meet the 2005 deadline (the auditor will need to use their discretion in determining what is appropriate for a given park).

Questions 3-16 cite the EMS requirements specified under the Code of Environmental Management Principles (CEMP). However, NPS facilities are encouraged to adopt any formal EMS standard that is appropriate for their operations. If a park has begun implementation of an EMS more closely aligned to a different model (e.g. ISO 14001), the auditor should bear this in mind during the audit process.

CHECKLIST ITEM		PRIORITY	NOTES
Implementation			
<i>Implementation of an EMS is not required until December 2005. Therefore, findings are based on BMP recommendations to begin the implementation process as appropriate.</i>			
1.	Through development and implementation of Environmental Management Systems, the facility has strategies to support environmental leadership programs, policies, and procedures. Senior-level managers explicitly and actively endorse these strategies. [BMP related to EO 13148 Sec. 201]	3	
2.	The facility is prepared to implement an EMS by December 31, 2005, based on facility size, complexity, and the environmental aspects of facility operations. The EMS will include measurable environmental goals, objectives, and targets that will be reviewed and updated annually. [BMP related to EO 13148 Sec. 401(b)]	3	
Management Commitment			
3.	Facility management ensures support for the environmental program at all management levels, and assigns responsibility for carrying out the activities of the program, including: <ul style="list-style-type: none"> • The adoption of an environmental policy. • Staff awareness of the environmental policy. • Funding and staffing requirements identified for environmental operations. [BMP related to CEMP 1.1]	3	
4.	Facility management facilitates a culture of environmental stewardship and sustainable development through education, meetings, planning, or outreach. [BMP related to CEMP 1.2]	3	

This document does not necessarily contain all information needed to determine compliance status.

CHECKLIST ITEM		PRIORITY	NOTES
<i>Compliance Assurance and Pollution Prevention</i>			
5.	Facility staff assures compliance with environmental regulations by establishing procedures to: <ul style="list-style-type: none"> • Review current federal, state, and local laws and regulations; • Review EOs and department policies regarding environmental issues; • Receive updates on new requirements; • Determine applicability of regulatory requirements to specific operations and assure that facility staff is aware of requirements (e.g., reporting requirements specific to park operations). [BMP related to CEMP 2.1]	3	
6.	Facility staff has formally implemented plans for hazard contingencies planning and emergency response situations. [BMP related to CEMP 2.2]	3	
7.	Facility staff has developed and maintains a program to identify and implement pollution prevention, best management practice, and resource conservation strategies. [BMP related to CEMP 2.3]	3	
<i>Enabling Systems</i>			
8.	Facility staff ensures that personnel are fully trained to carry out the environmental responsibilities of their positions. <ul style="list-style-type: none"> • The facility has conducted an assessment of training needs by job and has developed a plan to ensure staff is trained. • The facility has conducted general environmental awareness and job-specific training to staff whose job responsibilities may impact the environment. • Information related to the environment is regularly communicated to staff. [BMP related to CEMP 3.1]	3	
9.	Facility staff has established SOPs for meeting its environmental performance goals and compliance activities. [BMP related to CEMP 3.2]	3	
10.	The facility has an information management system that allows ready access and use of key environmental documents. [BMP related to CEMP 3.3]	3	
11.	Facility staff develops measures to address employee environmental performance, and ensure full accountability of environmental functions. [BMP related to EO 13148 Sec 404(b)]	3	
<i>Performance and Accountability</i>			
12.	Environmental performance goals have been identified for staff, and exceptional performance is recognized and rewarded. [BMP related to CEMP 4.2]	3	
13.	Employee performance standards, efficiency ratings, or other accountability measures are clearly defined (e.g., in job descriptions or performance evaluations) to include environmental performance related to employee job activities. [BMP related to CEMP 4.1]	3	

CHECKLIST ITEM		PRIORITY	NOTES
<i>Measurement and Improvement</i>			
14.	The facility has a program to assess environmental performance and uses that information to identify areas in which performance is, or is likely to become, substandard (i.e., fail to meet goals or become non-compliant). Environmental performance may be gauged through: <ul style="list-style-type: none"> Gathering and analyzing data regarding compliance with legal requirements or established goals; and/or Comparing the environmental operations of the NPS facility to related organizations. [BMP related to CEMP 5.1]	3	
15.	Facility staff seek continuous environmental improvement through: <ul style="list-style-type: none"> Implementing preventive actions; Implementing corrective actions; and Searching for new opportunities for programmatic improvements. [BMP related to CEMP 5.2]	3	
16.	Facility management periodically reviews the entire EMS to determine if it is meeting the facility's evolving goals and needs. [BMP related to CEMP 5.2]	3	